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ABSTRACT

Psychologists and educators have become interested in the development of a child's social and emotional abilities as well as cognitive outcomes. To determine the important coping patterns that predict success in school, a sample of 10- and 14-year old children (N=3600) from the U.S.A., Brazil, Italy, and Mexico completed a multi-lingual battery of coping and motivational measures. Results indicated the importance of coping and motivation factors in predicting school success, even after cognitive factors were considered. The findings indicate that coping well with the social world is an important predictor of children's mastery of intellectual endeavors. (Author/KMF)

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Social Adjustment and Achievement: A Cross National Survey

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Social Adjustment and Achievement: A Cross National Survey

Psychologists and educators have become increasingly interested in emotional and motivational factors in addition to the purely cognitive factors as goals of educational programs (Anderson & Messick, 1974; Schaefer, 1978; Zigler, 1970; Zigler & Trickett, 1978). This interest in social competence and social adjustment has prompted the study of coping and motivational variables and their relationship to children's success in school and the world (Zigler & Trickett, 1978). This issue is important not just in the United States but also in countries throughout the world. The examination of the relationship of social adjustment and achievement across cultures will provide important information about the generality of these relationships as well as precise descriptions of the coping/motivational patterns that are associated with school success in each country. Research conducted by Peck and associates (Peck, 1967; Peck, 1977; Peck, Hughes, Froming, 1978) has been directed toward developing an internationally valid system for defining socially adaptive behavior and toward the identification of patterns of coping behavior that predict school achievement. The present report describes the procedures and illustrative results of a cross-national study of coping patterns, in an effort to identify those coping behaviors that are substantially related to successful school achievement.

The subjects were 3600 children of both sexes, ages 10 and 14, and either upper-lower or upper-middle class SES. The children came from eight countries; results from four will be reported in this paper: Brazil,

Italy, Mexico, and the United States. Measures included the Raven Progressive Matrices, standardized reading and math achievement tests, and grade point average. The child's educational and occupational aspirations were assessed.

Another set of instruments was designed specifically for measuring coping behavior. There were semantically equivalent forms in all languages, achieved by first developing the instruments in English, then translating them, re-translating them independently ("blind") back into English, and pilot testing in the various countries until only universally usable, semantically equivalent test items remained. These instruments included a Sentence Completion test (SC), a projective measure designed to describe coping behavior; an Occupational Values Inventory (OVAL), to measure preferred characteristics of future work, and its rewards; the Social Attitudes Inventory (SAI), a self-report measure of coping skill; and the Views of Life (VOL), a measure of numerous, independent aspects of coping, such as locus of control, activity-passivity, independence of thought and action, etc. (Peck, et al., 1973).

Factor analyses were performed on each of the instruments. The initial results of those analyses suggested that each country and each age group would have its own factor structure for each instrument. Children from different countries and at different ages understood any one item in the same way, but they often clustered items quite differently. These findings eliminated the possibility of using "universal" factor scores across age and country, but this method has the virtue of defining clearly the precise mental constructs each different group used as it reacted to the pool of items in each instrument (Peck, 1977). Following the factor analyses, a

unit weighted score was derived for each factor by standardizing the variables and selecting those which loaded significantly on a particular factor.

Next, a series of regression analyses was performed in each country/age group. The first analysis tested the predictive significance of the coping factors (Sentence Completion, Views of Life, and Social Attitudes Inventory) with reading, math achievement, and grade point average as criterion variables. The second equation utilized the significant coping factors followed by the occupational values factors, educational and occupational aspirations, and the aptitude measure, to test the additional predictor power of these later variables after partialling out the coping factors. Finally, a regression equation was computed in which the aptitude measure was partialled out prior to all of the coping and motivation variables. These analyses made it possible to estimate the amount of variance in achievement that was uniquely contributed by the various cognitive and noncognitive predictors.

The findings presented in Table 1 illustrate the importance of the coping/motivational variables in predicting successful school achievement. In many cases the coping measures accounted for more of the unique variance of achievement than the aptitude measure. These findings indicate that children with good social adjustment skills not only possess the ability to cope with the social aspects of their world, but also are more likely to succeed in mastering intellectual challenges. The findings presented in Table 2 provide a description of the specific coping patterns that were found for each country. Although there are some similarities among successful students across countries (e.g., most cope well with

aggression and have high educational aspirations) there are also substantial differences, indicating a need to consider national cultural patterns in designing educational programs. (There was no simple, overall "Latin" pattern common to Italy, Brazil and Mexico. This was true, even though at least half of the children in the Sao Paulo, Brazil sample are of Italian descent.)

In summary, this study documents the need for psychologists and educators to consider emotional and motivational factors as a part of educational planning, not only for the goal of increasing the child's ability to relate to his/her social environment, but also as a possible link to his/her successful achievement in intellectual endeavors, as well.

TABLE 1

Aptitude, Coping Styles and Motivation as Predictors of School Achievement

Age 10

Percent of Variance Explained[1]

Predictors	Austin, Texas			Mexico			Brazil			Italy		
	Reading	Math	GPA	Reading	Math	GPA	Reading	Math	GPA	Reading	Math	GPA
Aptitude	15.5	14.5	12.8	9.4	11.7	11.7	5.2	5.9	1.0	8.5	10.5	12.8
Coping/Motives[2] (unique)	14.8	2.6	6.5	14.2	7.0	14.4	8.7	10.8	14.7	10.5	7.6	16.8
Total	38.1	19.2	23.3	48.7	33.9	42.7	21.8	20.1	20.6	24.7	21.6	36.8

Age 14

	Reading	Math	GPA	Reading	Math	GPA	Reading	Math	GPA	Reading	Math	GPA
Aptitude	6.8	10.7	2.3	6.2	14.6	13.6	1.0	3.3	1.8	7.3	3.9	3.3
Coping/Motives (unique)	13.2	13.0	24.3	20.3	13.0	4.0	22.5	18.8	8.4	22.1	8.8	6.4
Total	31.7	36.9	38.0	37.9	37.7	21.8	24.8	20.6	9.0	38.2	17.8	14.8

[1] Percent of variance explained is the multiple R^2.

[2] Coping measures: Sentence Completion, Views of Life, Social Attitudes Inventory
Motivation measures: Occupational Values, educational and occupational aspiration level.

Table 2

Austin 14 Year Olds	Criterion: Reading Achievement
C(VOL)20	- in control of his or her destiny: - expressivity
C(VOL)17	- views the world as complex
C(SAI)25	- reports self as a generally good coper in all areas
-C(SC) 7	- does not respond to aggression with hostile aggression
C(SC) 4	- able to cope with aggression in an effective manner, with neutral affect
ED ASP	- seeks high educational goals

Italy 14 Year Olds	Criterion: Reading Achievement
C(VOL)21	- a fast rate of action; active in stress situations
C(VOL)17	- in control of academic future; independent; values work for itself
-C(VOL)23	- solves problems with the aid of others
-OVAL 12	- does not value surrounding or associates, but managerial power
ED ASP	- seeks high educational goals
OCC ASP	- seeks high occupational goals

Brazil 14 Year Olds	Criterion: Reading Achievement
C(VOL) U	- independent
-C(VOL) Q	- deliberate; cooperative; has intrinsic interest in work
-C(SC) D	- does not respond to aggression with hostile aggression
C(SC) F	- copes effectively with aggression, neutrally, without hostility
OVAL N	- values independent work, and pleasant associates

Mexico 14 Year Olds	Criterion: Reading Achievement
C(VOL) Q	- values work intrinsically; independent
-C(VOL) T	- solves problems with others
-C(SC) F	- does not respond to aggression with hostile aggression
C(SC) H	- positive feeling about task achievement, and about anxiety-producing situations
-C(VOL) X	- views life as simple
ED ASP	- has high educational aspirations

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Social Adjustment and Achievement: A Cross National Survey

In addition to cognitive outcomes, educational progams are interested in the development of child's social and emotional abilities. A multi-lingual battery of coping and motivational measures was developed to determine the important coping patterns that predict success in school in a sample of 10 and 14 year old children in the U.S.A., Brazil, Italy, and Mexico. The results indicate the importance of coping and motivation factors in predicting school success, even after the cognitive factors have been considered. These findings clearly indicate that coping well with the social world is an important predictor of children's mastery of intellectual endeavors.